POINTS OF CONCERN WITHOUT REGARD TO ALTERNATIVE

I submit the following recommendations to clarify or improve the final White River Forest Plan:

DRAFT LAND AND RESOURCE MANAGEMENT PLAN

Chapter 1 – Forest-wide Goals and Objectives

Goal 1.5 – Conserve Forest Ecosystems

Draft LRMP at 1-4. The goal statement and the accompanying objectives are difficult to understand.

> **Action: Reword Goal 1.5 to "Provide for biodiversity in forested plant communities which includes a complete range of successional stages through a combination of human manipulation and natural processes.**
>
> **Action: Reword Objective 1.5a to "By the end of the plan period, 10% to 30% of forested landscapes meet the desired future condition contained in the direction for that management area.**
>
> **Action: Reword Objective 1.5b to "By the end of the plan period, 10% to 30% of upland landscapes meet the desired future condition contained in the direction for that management area.**

Goal 1.10 Water Quality. Objective 1.10. By the end of the plan period, acquire instream flow water rights or establish instream flow protection measures in special-use authorizations which protect 10% of all perennial steams.

> **Draft LRMP at 1-5**. Although a goal and an objective, this may in practice be treated as a standard. The Colorado Water Conservation Board ("CWCB") is the exclusive entity under Colorado law which may appropriate, acquire, and hold instream flow water rights on Colorado rivers and streams. This objective suggests that the Forest Service would like to partially usurp the CWCB's role in the White River National Forest. It is unclear how the objective affects existing water rights (taking?), how other federal agencies (the Corps, FWS, EPA) will attempt to use the provision, and whether the Forest Service's instream flows may be argued to be cumulative with, rather than duplicative of, the CWCB's instream flows.

This goal and objective also suggests that the Forest Service has the legal authority to require private water users to relinquish a part of their decreed water rights to the Forest Service as a condition of obtaining or renewing a special use authorization. The Forest Service does not have such authority. A Federal Water Rights Task Force authorized by Congress several years ago concluded that the Forest Service does not have "the authority necessary to allow it to require that water users relinquish a part of their existing water supply or transfer their water rights to the United States as a condition of the grant or renewal of federal permits." (Report of the Federal Water Rights Task Force Created Pursuant to Section 389(d)(3) of P.L. 104-127.)

Action - Goal 1.10 (Page 1-5) should be rewritten to indicate that the White River National Forest will work with the Colorado Water Conservation Board to "provide instream flows wherever such flows are determined to be beneficial and consistent with purposes of the forest" and Objective 1.10 (Page 1-5) must be rewritten to delete any suggestion that established water rights will be taken from public or private organizations.

Goal 2.1. Recreation Opportunities

Draft RLMP at 1-6. The Objectives should include use of partnerships to extend the ability of the Forest Service to accomplish its recreation mission.

Action - Add Objective 2.1c. Develop partnerships with recreation groups to facilitate maintenance, reconstruction, and rehabilitation of trails and recreation facilities.

Draft LRMP at 1-10. The Blended Alternative, at the direction of the Northwest Colorado Council of Governments (NWCCOG), supports building stronger cooperative relations between local government and the White River National Forest.

Action - Revise Goal 3.4 by adding the words "and community" after the word ecosystem. The goal would read "Cooperate with individuals and organizations, and local, state, tribal, and federal governments to promote ecosystem and community health and sustainability across landscapes.

Action - Add Objective 3.4c - Provide a specific process for local governmental jurisdictions to participate in planning and management of NFS lands, especially where local governmental jurisdictions are contiguous to NFS lands.

See also proposed standards and guidelines for the Administration Section Page 2-35.

Chapter 2 - Standards and Guidelines

Air Resources

Standard 1. Meet state and federal air quality standards, and comply with local, state and federal air quality regulations and requirements, either through original project design or through mitigation, for such activities as prescribed fire, ski area development or expansion, mining, and oil and gas exploration and production.

Draft LRMP at 2-3 (emphasis added). Are there local air quality regulations which would apply to a "ski area development or expansion"? Does this standard give local entities air quality authority they otherwise do not have?

Action - Omit the word local from this standard.

Water and Aquatic Resources

Standard 1. Maintain a minimum of 70% of potential aquatic habitat capability for streams capable of supporting a self-sustaining fishery.

Draft LRMP at 2.5. Many streams adjacent to ski areas may be near or below "70% of potential aquatic habitat capability" as a result of historical mining activities. If applied literally, this standard could potentially foreclose existing and future snow making water withdrawals that may have only minimal impacts. A similar provision in the existing Forest Plan has been used by snow making opponents. It is unclear how this standard accounts for mining impacts and other past activities that adversely impact the aquatic resources "baseline". It is also unclear how and where compliance is measured. What is the geographic scope of "aquatic habitat"? The standard does not define "self-sustaining fishery" or "potential aquatic habitat" which are critical elements of the standard. Finally, it is unknown how the standard will take into account natural events such as floods, winter kill, drought, etc. which may impact aquatic habitat and fisheries.

Action - Change Standard 1 to a Guideline which provides direction for the Forest Service to maintain viable aquatic habitat to support a self-sustaining fishery.

Standard 2. Manage land treatments to conserve site moisture and to protect long-term stream health from damage from increased runoff.

Draft LRMP at 2-5. Snow making always produces "increase runoff". Does this standard apply to snow making? Snow making opponents may try to use this

standard to argue that existing and proposed snow making will damage "long-term stream health" and should be prohibited.

Action - While snow making does not always produce increased runoff, this standard appears to open the way to no timber harvest or other vegetation management which do increase runoff. Change Standard 2 to Guideline 2 which reads: "Manage land treatments to conserve site moisture and to keep increased runoff within acceptable increases."

Standard 5. In the water influence zone next to perennial and intermittent streams, lakes and wetlands, allow only those actions that maintain or improve long term stream health and riparian ecosystem condition.

Draft LRMP at 2.5. For a mandatory prescription, this standard is extremely vague and subjective and raises more questions than it answers. Apart from activities with direct adverse impacts to stream health (e.g., bulldozing a stream bed or dumping pollutants into a creek), it is unclear whether many actions "maintain or improve long-term stream health and riparian ecosystem condition". Snow making withdrawals, runoff from snow making, erosion from trail construction or maintenance, and other actions may have some effect on steams and riparian ecosystems. For instance, a snow making withdrawal which complies with state water quality standards and classifications arguably may not "maintain or improve long-term stream health and riparian ecosystem condition". Does this standard prohibit water diversion or other action with a water quality impact? The standard also fails to define critical concepts such as "water influence zone," "long-term stream health," and "riparian ecosystem condition".

Action - Reword Standard 5 to say something like "allow only those actions which do not unacceptably degrade long term stream health. . ."

Action - Add an objective reading: Within 15 years, identify and with the Colorado Water Conservation Board work to protect necessary stream flows for at least 10% of the stream segments identified as having high resource values in the watershed reconnaissance.

Standard 7. Conduct actions so that stream pattern, geometry, and habitats are maintained or improved toward robust stream health.

Draft LRMP at 2-5. Query: Does this standard apply to snowmaking? If so, this standard is too vague to guide compliance with a mandatory prescription to maintain or improve "robust stream health."

Action - Change Standard 7 to Guideline 7 which reads: "Conduct actions to restore stream pattern, geometry, and habitats which are typical of a robust, healthy stream."

Standard 8. Maintain long-term ground-cover, soil structure, water budgets, and flow patterns of wetlands to sustain their ecological function, per 404 regulation.

Draft LRMP at 2-5. This standard mistakenly suggests that the 404 regulations of the EPA and Corps of Engineers broadly regulate wetlands. They do not. The 404 regulations require the mitigation and avoidance of impacts from discharges or dredged of fill materials into wetlands. The regulations do not set prescriptive standards for non-discharging activities in wetlands. If the standard is applied outside the scope of discharges of dredged or fill materials, it could be interpreted to prohibit snowmaking water diversion which alter "flow patterns of wetlands".

Action - Forest Service revise the standard to accurately reflect the 404 regulation.

Standard 12. Apply runoff controls to disconnect pollutant sources from surface and ground water.

Draft LRMP at 2-6. Does this standard apply to snowmaking additives (snowmax) or other salts? The use of the term "disconnect" suggests that a mere trace of pollutants in surface and ground water may violate the standard.

Action - Change Standard 12 to Guideline 12 which reads: "Apply runoff barriers to buffer pollutant sources from surface and ground water."

Biological

Standard 2. Restrict activities to avoid disturbing proposed, threatened or endangered species during breeding, young rearing, or at other times critical to survival. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat. This determination will be made by a biologist or botanist.

Draft LRMP at 2-9 (emphasis added). The "avoid disturbing" standard is vague: just how much must ski area operations be changed to "avoid disturbing" wildlife? And this critical determination is left in the hands of a "biologist or botanist". A biologist or botanist should consult in the issue but the determination should be made by the District Ranger or Forest Supervisor. This standard reveals the unfettered discretion the Forest Service increasingly places in the hands of biologists.

Action - Change Standard 2 to Guideline 2 which reads: Reschedule, or if needed, restrict human activities to avoid life threatening disturbance of proposed, threatened or endangered species during breeding, young rearing, or at other times critical to survival. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat. This determination will be made in consultation with a wildlife biologist.

Standard 4. Bald Eagle. Human activities should be prohibited within 250 yards of bald eagle winter roosting areas between November 15 and March 1.

Draft LRMP 2-9. Is the Forest Service certain that no portion of any ski area operation or other outdoor venue is within 250 yards of a bald eagle winter roosting area? This standard would shut down several portions of Grand Junction including a Middle School.

Action: Change this Standard to a Guideline.

Wildlife

Standard 1. Seasonal restrictions will be applied to reduce disturbance in key wildlife habitats.

Draft LRMP 2-18. This standard is not definitive. What is "key wildlife habitat"? What level of disturbance is acceptable?

Action - Delete unless a more definitive and defensible statement is developed. If not delete, make it a Guideline.

Standard 4. Protect known active and inactive raptor nest areas.

Draft LRMP at 2-18. This standard is only appropriate for T&E species.

Action - Revise the wording of the first sentence to read "Protect known active and inactive threatened or endangered raptor nest areas."

Draft LRMP at 2-22. The Standards and Guidelines for noxious weeds do not indicate the need to work with the affected counties to coordinate programs. The counties are also unable to determine the resources available in the alternatives for noxious weed control and prevention.

Action: Add Standard #5. Coordinate noxious weed programs annually with White River National Forest counties.

Action: Identify in the budget section which resources are available for noxious weed control and prevention.

Social - General Recreation

Standard 1. Generally, Standard #9 of Water and Aquatic Resources provides for most recreation-related water uses, but additional water may be needed for special recreation features and heavy-use recreational areas. Maintain enough additional water in associated streams to sustain the water-dependent recreational values.

> **Draft LRMP at 2-25 (emphasis added).** It is uncertain whether this standard could be used to prohibit or alter snowmaking diversions. What are "special recreation features and heavy-use recreational areas"? Could this standard be used to argue that winter flows must be maintained at higher levels to accommodate fishing - a "water-dependent recreational value"?

Action - Make Standard 1 a Guideline.

Draft LRMP at 2-26

Action - Add a new social recreation schedule entitled "Recreation Travelways" with the following standards and guidelines:

Standard - 1. When closing, decommissioning or restricting use(s) of trails, analyze and document why mitigation is unfeasible and the potential effect of the closure or restriction on current users. Provide this documentation to the local community and county, recreation user groups and known affected individuals.

Guidelines - 1. Close, obliterate, or restrict recreation travelways using the following guidelines:

*** Close or obliterate travelways only where use is damaging or unreasonably disturbs land, wildlife, or vegetative resources and only after making a best effort to identify and implement mitigation alternatives that would leave the travelway open.**

*** Permanently close, obliterate or restrict use only after consulting with concerned members of the public including public officials, user groups and individuals. Provide**

interested individuals, groups and officials with prompt notice of any temporary closures or restrictions.

*** Actively pursue partnerships with affected user groups to secure volunteer labor and outside funding to maintain, reconstruct or relocate travelways to avoid the necessity for closure.**

Administration - Infrastructure

Draft LRMP at 2-31. The Standards and Guidelines do not recognize the value of working cooperatively with local government and private organizations to maintain trails of mutual interest.

Action - The philosophy that the travel map is the final authority when enforcing travel plan provisions should appear somewhere in this section.

Action - Standard 2. Modify the sixth qualifier to read "Travelways do not serve an existing or identified public transportation, management or recreation need."

Action - Standard 2. Modify the seventh qualifier to read "Financing is not available for maintenance necessary to protect resources, taking into consideration volunteer labor that may be available through partnerships with user groups or from other sources."

Action - Guideline 5. Modify the seventh qualifier to read "Cost of continued maintenance and the availability of volunteer labor and outside funding."

Action - Add Guideline 6. Work with local governments, including counties, and all private organizations to secure resources and volunteer labor to maintain trails of common interest.

Administrative - Real Estate

Standard 1. In land adjustment activities, give priority to acquiring lands that contain habitat identified by the U. S. Fish and wildlife Service as necessary for the recovery of federally listed threatened and endangered species.

Draft LRMP at 2-32. Query: How will this standard complicate efforts by private entities to exchange private lands for federal lands? Will it foreclose exchanges that do not contain desired habitat? How will it affect efforts to acquire wilderness inholdings?

Action - Change Standard 1 to a Guideline.

Administrative - Special Uses

Standard 1. Do not approve new uses, and phase out current uses, where the primary use is storage or disposal of hazardous materials, including landfills, when the permits expire.

Draft LRMP at 2-35. There are some beneficial hazardous materials such as explosives and military weapon ammunition. Are any of these stored at CDOT or ski area special uses?

Action - If so, revise the standard to exempt acceptable hazardous materials.

Guideline 1. Do not approve any special-use applications that can be reasonably met on private or other federal lands unless it is clearly in the public interest.

Draft LRMP at 2-35. This guideline may open the door to arguments that winter recreation should not be expanded on federal lands or at a particular ski area because it can be supplied on private lands or another ski area on federal lands. Similar arguments are being raised to oppose a ski area expansion on the White Mountain National Forest in New Hampshire. How does this guideline accommodate the Forest Service's policies in favor of winter recreation and skiing on National Forest System lands?

Action - Reword Guideline 1. As follows: Do not approve new special-use applications.

Add Guideline 2. Give priority to expansion of existing special uses over new special uses providing the same service.

Administrative - Transportation and Utility Corridors

Standard 3. Do not authorize conflicting uses or activities within transportation and utility corridors.

Draft LRMP at 2-35. What are "conflicting uses or activities"? Skiing and snowboarding? Could any recreation activities occur in a transportation and utility corridor?

Action: Change Standard 3. to a Guideline.

Draft LRMP at 2-35. Counties in the influence area feel electronic sites are very important to maintain and improve communications.

Action: Add a Standard that provides meeting with all Counties periodically to evaluate additional electronic transmission needs. Conduct the needed studies with the Counties to evaluate use of vacant capacity at existing sites and the need for new sites.

Draft LRMP at 2-35. At the urging of Northwest Colorado Council of Governments, the Blended Alternative proposes the following Standards and Guidelines to improve cooperative relations between local government and the White River National forest.

Standards - 1. Consult with elected officials for each local governmental jurisdiction adjacent to or affected by the management of National Forest System lands throughout the planning process.

2. In cooperation with local jurisdictions, establish a process through a Memorandum of Understanding for intergovernmental information exchange with local governmental jurisdictions adjacent to or affected by the management of National Forest System lands throughout the planning process.

3. Acknowledge local jurisdictions' approved plans, regulations, and data, and seek resource knowledge provided by local governmental representatives.

4. Involve representatives from local governmental jurisdictions adjacent to or affected by the management of National Forest System lands in the monitoring and evaluation of implemented plans.

Guidelines - 1. Consider the jurisdiction, expertise, and role of state and local governments as regulators, land managers, and citizen representatives when planning the uses of the National Forest System.

2. Recognize the government-to-government relationship between local governments and the federal government.

3. Develop, when appropriate and practicable, coordinated multi-jurisdictional land and resource management plans.

4. Consider local jurisdictions' concerns and suggestions when making decisions and provide documented rationale for the acceptance or rejection of those concerns and suggestions.

1.13 Semi-Primitive Wilderness

Recreation Guideline #4. Except for through travel use, prohibit or restrict recreational livestock.

Draft LRMP at 3-8. This could make wildlife management much more difficult if used to restrict hunting access and restrict the opportunity to harvest big game within wilderness.

Action: Meet with DOW to arrive at a mutually acceptable wording.

5.41 Deer and elk winter range

Wildlife Guideline #1. Where trees and shrubs are sparse, and terrain is the primary factor providing cover, prohibit human activity during periods when elk and deer are concentrated in the area.

Draft LRMP at 3-60. This guideline is ambiguous and needs clarification.

Action: Reword to "Where trees and shrubs are sparse and terrain is the primary factor providing cover, restrict human activity to designated roads and trails during the winter or elk calving period as defined on 3-65.

5.45 Forest Carnivore Prescription Area

Issue: This is a management prescription area that was created by the White River National Forest staff to address Lynx and Wolverine habitat. Active treatment is limited to aspen and lodgepole pine cover types, although areas with significant amounts of spruce-fir are in the prescription.

Current thinking suggests wildlife habitat should not be managed for a single species, but rather for multi-species habitat needs. At this time there is limited knowledge on the needs of the Lynx and Wolverine and their habitat requirements. This seems more applicable now that the U.S. Fish and Wildlife Service has determined that in the Southern Rocky Mountain Region, the amount of lynx habitat is relatively limited and does not contribute substantially to the persistence of a continuous U.S. lynx population.

Action: A better prescription is 5.4 Forested Flora and Fauna Habitats, where active management occurs in "a variety of forest and non-forest plant communities and successional stages, over the long term, through a combination of human manipulation and natural processes."

7.1 Intermix

Desired Condition. Cooperative relationships are emphasized with other agencies and adjacent private landowners.

Draft LRMP at 3-70. The White River National Forest Analysis of Management Situation (AMS), published in July of 1997, identified urbanization as one of the seven revision topics. Only six of the original seven revision topics are listed within the Draft Forest Plan. The Urbanization Revision Topic is not directly addressed in the summary of each management alternative and there is little mention in the body of the text. The AMS states that there are no legal requirements related to this topic "However, Forest Service policy to cooperate with state and local governments, to engage in boundariless planning and to implement ecosystem management clearly dictates the need for collaboration with others in developing management strategies for the forest plan (AMS page 3-38)." Further support for the need for multi-jurisdictional collaborative planning comes from the USDA Committee of Scientists who recommended that a way to improve the management of National Forests is to "...develop more collaborative relationships with local communities ... throughout the planning process." The AMS identified the dimensions of the Urbanization Revision Topic to include Access, Recreation, Fire, Vegetation Management, Watersheds, Wildlife, Domestic Grazing, Mineral Activity, Air Quality, Special Uses, Landownership Adjustment, and Safety.

The final Land and Resource Management Plan must better reflect the need to consider local government master plans in developing the final Forest Plan and to establish a culture of collaboration with local and state government in resolving issues on intermingled National Forest and private lands or National Forest lands adjacent to urbanizing private land.

Action - Include the following statement: Cooperative relationships are emphasized with local, county, and state governments, agencies and adjacent private lands. Local government and agency master plans are considered when planning National Forest projects. Public comment on National Forest projects will include local governments, agencies and adjacent land owners. The White River National Forest will develop a culture of multi-jurisdictional decision making and seek to mutually develop a multi-jurisdictional decision process.

Action: Add a Standards and Guidelines Section under 7.1 Intermix titled "Cooperative Relations" and develop appropriate Standards and/or Guidelines to ensure that planning for projects includes consideration of the objective of local governments, and where conflicts are identified, consideration of alternatives to resolve the differences. Include the following Standards:

Standard 1. In cooperation with the Northwest Colorado Council of Governments, identify a pilot area, develop a Memorandum of Agreement and Vision, and mutually develop a multi-jurisdictional decision making process which includes common resource information on a GIS system.

Standard 2. In consultation with the Northwest Colorado Council of Governments, implement the pilot decision model for other intermix areas on the White River National Forest.

Standard 3. With Summit County, develop a comprehensive trail system for the Snake River Basin.

During the first Forest Service public meeting with Eagle County, the County questioned whether the Forest Service had consulted and incorporated local government Master Plan goals and objective into the Draft Forest Plan. They were informed by the planner that these plans were neither consulted nor incorporated into the Forest Plan. This led to a review of the Code of Federal Regulations pertaining to Forest Planning (Title 36, Chapter II, Subpart A, Part 219, Sec. 219.7 (c) which states that the Line Officer shall review planning and land use policies of local governments. The results of this review shall be displayed in the EIS for the plan. This is not the case.

Action: Complete this review before the final Forest Plan is prepared and include a treatment of the following under desired conditions:

(1) Consideration of the objectives of other local governments as expressed in their plans and policies;
(2) An assessment of the interrelated impacts of these plans and policies;
(3) A determination of how each Forest Service plan should deal with the impacts identified; and,
(4) Where conflicts with Forest Service Planning are identified, consideration of alternatives for their solution.

The preferred alternative identified by the White River National Forest in the Proposed Plan Revision and DEIS identifies zero (0) acres of multi-jurisdictional intermix lands on which to apply intermix prescriptions.

Action: The Blended Alternative identifies a number of intermix areas which, if this alternative is not selected, should be carried into the selected alternative.

E. Management Area Direction 8.25 - Ski-Based Resorts

Standard 2. Snowmaking and other water depletions will be conducted to conserve stream pattern, geometry, substrate composition and aquatic habitat in affected perennial streams.

Draft LRMP at 3-78. This mandatory standard is vague: when does a "depletion" "conserve" aquatic resources? The standard is unclear and invites dispute.

Action - Change Standard 2. to a Guideline.

Chapter 3 – Management Area Direction

There are four Management Areas (1.2, 1.41, 1.5 & 2.2) outside existing wilderness where no vegetation management is planned. Natural disturbance processes (fire, weather, and insects and disease) will be allowed to occur in these areas.

Action: For each of these Management Areas identify that the desired condition is to allow natural disturbance processes (fire, weather, and insects and disease) to occur.

In addition, there are twelve Management Areas where it appears some vegetation management will occur because timber harvest is allowed. However, the description of how the forested vegetation will be managed is extremely vague. The vegetation management direction for many of these areas is limited to statements that natural appearance is desired, natural processes will predominate and that vegetation management practices will be used to meet specific resource objectives other than wood production. There is no mention of improving the diversity of age classes. (Management Areas 1.31,1.32, 2.1, 3.1, 3.21, 3.31, 3.32, 3.4, 3.55, 4.2, 4.23 & 4.3)

Action: Add a Forest Health section under each Management Area's Desired Condition and identify the desired forest health condition with a brief paragraph on how the Forest Service will accomplish that desired condition. Add standard and guidelines as needed.

Only Management Areas 5.12, 5.13, 5.4, 5.43, 5.45 & 8.25 are managed to improve forest vegetation diversity. Under Alternative D only about 35-40% of the forested cover types on the Forest are included in these Management Areas.

Appendix F – Management of Late Successional & Old Growth Stands

There is no mention of the fact that several of the "Late-Successional Assessment Areas" have an excess of older age classes. These older stands are increasingly susceptible to insects, disease and fire. As a result they constitute a threat to themselves and to adjacent stands. As discussed in Note #1, the 1939-52 spruce bark beetle epidemic on the Flat Tops Plateau killed the old growth spruce in that area. A similar event is very possible in other parts of the Forest.

The Blended Alternative agrees with the Forest Service's decision not to have an old growth standard for Douglas-fir, lodgepole pine and Aspen.

Action: Add the factual information that there is an excess of older age classes to Appendix F.

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Chapter 1 – Purpose, Need & Significant Issues

Biodiversity - Forest Health

Issue: The draft Plan does not adequately address forest health. According to the DEIS (Appendix D-17), "forested stands are trending toward higher magnitudes of maturity and canopy density over most cover types." The DEIS (3-459) shows 112,400 acres of spruce-fir at moderate or high risk to spruce bark beetle and 62,500 acres of the lodgepole pine cover type at moderate to high risk to mountain pine beetle. Aspen stands are aging. There is more aspen than is desired in uniform age classes, which will be replaced by spruce-fir (DEIS 3-96). Appendix D concludes that fire in the lodgepole and aspen cover types are trending toward being outside of the Historic Range of Variability (HRV), and the frequency and extent of high-intensity fires are outside of the HRV (D-33). The section on Insect and Disease concludes that fire suppression has resulted in more large scale insect epidemics, root diseases and lodgepole dwarf mistletoe outside the HRV and ratios of aspen in older age classes, which favor insects and disease, outside the HRV (D-38).

Action: Address the above forest health points in the Final Forest Plan. Perhaps start on page 3-9.

Biodiversity - The description understates the biodiversity intent of the 1984 Forest Plan. One of the primary goals of the !984 plan was to maintain and improve diversity in the forested vegetative types. Emphasis was placed on maintaining species diversity and improving the distribution of age classes (structural stages). Vegetative diversity is a key component of biodiversity. Further, it is the one component which can be significantly affected by forest management. To convey the impression that the 1984 Plan did not address biodiversity is misleading.

Action: Revise Biodiversity section of Chapter 1 to reflect the above.

Timber Suitability and Allowable Sale Quantity – The description of the timber management program included in the existing Forest Plan is understated. The 1984 Plan provided for an average annual programmed sale quantity (PSQ) of 43.5 MMBF. During the first 1-2 decades, this annual program consisted of 25.2 MMBF of live timber and 18.3 MMBF of dead timber. Primary goals of the program were to:

(1) Salvage the dead spruce killed by the 1939-52 insect epidemic and reduce the potential for damaging fires in the residual spruce-fir stands.

(2) Control the mountain pine beetle epidemic, which was occurring in the lodgepole pine type, and reduce the potential for future insect epidemics by improving the distribution of age classes.

(3) Initiate a more cost effective program for regenerating aspen stands through the use of commercial timber sales.

The 18.3 MMBF of dead timber was not part of the Forest's allowable sale quantity (ASQ). The intent of the program was to salvage the dead spruce first. Then, as the dead timber was depleted, to increase the percentage of live timber (ASQ) to maintain an annual sales program of 43.5 MMBF. This was intended to provide a sustained yield of timber for the dependent industry as well as to continue to improve vegetative diversity. The average annual sales program under the 1984 Plan was 43.5 MMBF, not 25.2 MMBF.

Action: Revise Chapter 1, Timber Suitability and Allowable Sale Quantity section to reflect the information above.

Issues/Topics Not Addressed – Several significant issues were not given consideration in the identification of planning topics:

An Excess of Mature & Old Growth Structural Stages (Age Classes) in the Forested Vegetation Types – Table 3-17 of the D.E.I.S. shows that 46% (607,700 acres) of forest cover types are in mature and old growth structural stages. One footnote to Table 3-17 indicates that many of the Aspen stands shown as being in structural stage 3 (Intermediate - sapling/pole) are actually mature. If these 286,600 acres of pole-sized aspen are added, the total acreage of mature/old growth age classes becomes 894,300 acres (67%). Another footnote to Table 3-17 states that about half of the forested land is in a mature structural stage (4 or 5). This would mean that approximately 665,500 acres are mature or old growth. Only 7% (87,700 acres) of the forested vegetation is in early successional stages.

Whether or not this imbalance in the distribution of age classes is outside the "Historic Range of Variability" is debatable. However, it is clear that the current trend is toward older age classes. The imbalance will become even more pronounced as existing intermediate age classes reach maturity.

Experience has shown that this type of imbalance in a biologic population will not persist indefinitely. Eventually these old stands will be destroyed and regenerated by some combination of weather, insects, disease and fire. Past experiences such as the 1939-52 spruce beetle epidemic and the 1988 fires in Yellowstone have also demonstrated that when these natural events occur they can be large scale and catastrophic.

Further, the diversity of species, which currently exists in the Forest, is declining. Many of the aspen and lodgepole pine stands are steadily converting to fir and spruce. The spruce-fir type is already the largest cover type on the Forest.

In view of the scope of the problem, it is difficult to understand how the conditions and on-going trends in the forest cover types were not identified as an issue or planning topic or at least described under the biological diversity revision topic.

Action: At this point, the easiest treatment of this issue is to revise the Biological Diversity topic sections in Chapter 3 to reflect the above information.

Action: Add a brief description of the timber supply and import picture at an appropriate place in the plan and include this issue on page 1-9.

Chapter 2 – Alternatives

None of the alternatives considered emphasize improving the distribution of age classes in the forested vegetation types or recognize increasing needs for natural resources.

Action: For each alternative, add a description of the impact that alternative will have on diversity of forested plant communities.

Alternative B – As previously stated, the 1984 Forest Plan emphasized management of the forested vegetation types and provided for a sustained timber sales program of 43.5 MMBF per year. Representation of Alternative B as the 1984 Forest Plan is not entirely valid. The DEIS No Action Alternative B contains many changes to the existing Forest Plan, such as: a 50% reduction in the ASQ, withdrawal of approximately 106,000 acres from the suitable timber lands, designation of new management areas and drastic changes to the travel management policy. Alternative A (considered but eliminated), seems to better reflect "no action." The No Action Alternative in the DEIS contains so many changes, it is difficult to accurately access each alternative's variation from current management. Alternative B does not meet the requirement that a No Action (or No Change) alternative be considered.

Action: Revise the description of Alternative B including its timber sale program to accurately reflect the 1984 Forest Plan and facilitate meaningful comparison between current and proposed management alternatives.

DEIS at 2-52. The Draft EIS inadequately identifies and assesses the developed recreation, trail, and road backlog of deferred maintenance and reconstruction. The plan also does not identify for the reader what correction of these deficiencies will cost nor the social and environmental consequences. And, finally, the plan does not

adequately identify the capital investment in developed recreation facilities and trails needed to meet current and expected future demand.

Action: Identify a schedule and the cost for correcting developed recreation deficiencies in deferred maintenance and reconstruction in Table S-2 and Table S-3. In the section on page 3-278 and 3-287, adequately identify the social and environmental consequences of not correcting these deficiencies.

Identify a schedule and the cost for correcting trail deficiencies in deferred maintenance and reconstruction in Table S-2, Table S-3, and in the section on page 3-238 fully discuss the social and environmental consequences of not correcting these deficiencies.

Identify and schedule and the cost of correcting road deficiencies in deferred maintenance and reconstruction in Table S-2, Table S-3, and fully discuss the social and environmental consequences of not correcting these deficiencies on page 3-235 and elsewhere.

Expand Table S-3 to include a Capital Investment section which is not constrained by budget cap so that citizens and policy makers can see the true needs for developed recreation, trail, and road backlog as well as the needs for new recreation and trail investments.

Identify and schedule developed recreation facilities needed to meet current and future demand in Table S-2 and the cost of doing so in Table S-3 without regard to budget level so that citizens and policy makers can see the true needs. Evaluate the social and environmental consequences of not completing the needed recreation facilities and trails in the appropriate sections of Chapter Three.

Chapter 3 – Affected Environment/Environmental Consequences

Watersheds

Table 3-7, page 3-56. The harvest acres during the first decade from the Blue River Drainage in Summit County is 45 percent of the total across the White River National Forest.

> **Action: Constrain the timber harvest models to spread the timber harvest equitably across the analysis areas.**

Biodiversity – Forested Vegetation

During the planning process, considerable time and effort was spent inventorying and analyzing patch characteristics, edge density, old growth, perforation and fragmentation. The results of these analysis indicate that there are few problems in these areas on the White River National Forest. However it appears that much less time was spent determining the rate at which aspen and lodgepole pine stands are being replaced by spruce-fir. Even less time was spent assessing conditions and age class distribution in gambel oak and mountain shrub vegetative types. The analysis effort appears to have been more focused on problems common to forests in the northwest than to local conditions on the White River National Forest.

It also appears that the planners failed to recognize the significance of information collected concerning the ages of forested vegetation and ecological processes. The following is an expanded re-statement of some of the information included in the D.E.I.S.:

> Prior to European settlement frequent lightning fires occurred at the lower elevations within and adjacent to the area that is now the White River National Forest. Some of these fires burned upslope into the higher elevations of the Forest until they encountered a change in fuel and/or moisture conditions that prevented further fire spread. In many cases they would have been stopped by aspen stands which had been regenerated by previous fires. Less frequently, lightning fires were ignited at the higher elevations which burned much the same as the fires starting at lower elevations. Fire return intervals probably varied from 10-20 years at the lower elevations to as much 500 years in the high elevation spruce stands on north aspects. Fire return intervals in the middle elevations probably ranged from 100 to 200 years. Fires would also have been more frequent on south and west facing slopes than on north and east aspects. At the lower elevations the fires were probably low to moderate intensity due to lighter fuel accumulations between fires. The higher elevation fires, when they did occur, would have been higher intensity, stand replacement fires. The higher intensity would have been a result of both a greater accumulation of fuels and the branching patterns of fir and spruce.

Weather, insects and disease also played a role in this natural disturbance regime. The resulting landscape would have been a mosaic of both species types and age classes. The general aspect was probably much more open than the Forest is today.

During the period from 1870 to 1910 the natural fire regime was accentuated by timber cutting and burning associated with settlement. Extensive aspen and lodgepole pine stands became established following those disturbances.

Since 1910 the natural fire regime has been interrupted by fire control. The effectiveness of fire control efforts have been enhanced by the aspen and young lodgepole pine stands which were established following settlement. The aspen stands, in particular, have repeatedly served as natural fuel breaks reducing fire spread. As the result of this protection, most of the forested vegetation types have gone almost a century with comparatively little disturbance to regenerate new stands. The most significant exception to this lack of disturbance was the 1939-52 spruce beetle epidemic, which reduced age classes but did not regenerate new stands. Whether or not the existing conditions are outside the "Historic Range of Variability" may be a subject for academic debate, but it seems unlikely that so much of the Forest has ever gone almost a century with so little area burned. What is clear is that more than half of the forested vegetation is mature or older and there has been almost a century of fuels accumulation.

Action: You may wish to use this summary on page 3-81.

Much of the following is discussed in detail in the D.E.I.S. and is displayed in Table 3-17 and Figure 3-2. These graphics indicate that:

- There are more than 350,000 acres of aspen 80 years of age or older.
- There are more than 210,000 acres of lodgepole pine 100 years or older.
- There are more than 360,000 acres of spruce-fir 150 years or older.

Depending upon how many of the pole-sized aspen stands are considered to be mature, 50-67% of the forested vegetation is in a mature age class or older.

The planners consider these conditions to be within the "Historic Range of Variability" and apparently attach little significance to them. However, within the next 50 years the following can be expected to happen:

- Aspen is a short-lived tree and most of the trees that are now 80 years old will die.
- A conifer understory is well established under many of the aspen stands and will become dominant. This type of change, in combination with the mortality of the overstory trees, will convert these stands from natural fuel breaks to part of the fuel component.

- Mountain pine beetle infestations will recur in the lodgepole pine stands. It is reasonable to expect at least 33% mortality in the stands which are now 100 years old. Higher mortality rates can be expected in the older stands.
- Mortality from a variety of agents can be expected in the subalpine fir component of the spruce-fir stands.
- Spruce bark beetle infestations will recur in the spruce stands.
- The decay fungi common to mature and old growth trees will continue to progress reducing the potential utility of these trees for wood products. These losses will be particularly high in the aspen and subalpine fir stands.
- Fires will occur and, because of increasing accumulations of dead fuel, both the fire intensity and the resistance to control will increase. Due to the increasing continuity of fuels, individual fires will burn larger areas than they have in the recent past.

It is not possible to predict how many acres will burn, but some scope of the potential is indicated by the fact that more than 665,000 acres of mature and old growth are at risk. Also, if an average fire return interval of 300 years is assumed for the natural fire regime, an average of 220,000 acres would have burned during a 50 year period. Another indication of the potential is the 600,000 acres which apparently burned from 1870 to 1910.

Due to the moist conditions normally associated with higher elevations, most of the burning will be concentrated in a few drought years.

When these fires occur, they will consume most of the dead wood and kill most of live trees on the areas they burn. Some of the dead and damaged trees will be salvageable but much of the material will no longer be usable for wood products.

Action: My team believes these predictions are accurate given the assumptions in this Forest Plan. You should incorporate these environmental consequences beginning on page 3-96.

Wildfire Hazard Mitigation

DEIS at 3-101. Issue: The draft Forest Plan contains inadequate direction for addressing vegetation management in the wildland/urban interface. Wildfires in this area are costly to local, state and federal governments. Local counties are responsible for providing and paying for structural fire protection against wildfires that ignite on federal lands. Fuel loading at hazardous levels on White River National Forest lands, in the interface, will increase wildfire suppression cost for local counties and the State. These costs are passed on to county and state taxpayers.

Action: In the Final Forest Plan, provide for actively managed National Forest lands adjacent to private lands to reduce wildfire risk. Address vegetation treatments to reduce fuel load and arrangement in high risk and hazard areas.

Ski Based Resorts

DEIS at 3-209. The last paragraph says that skiing and snow grooming equipment causes snow compaction in long linear corridors from base area to mountain summit of most ski mountains. "Some species such as lynx are particularly affected by snow compaction. Snow compaction increases areas in which competitor species (such as coyote) can access prey species, reducing the advantage lynx has in these deep snow habitats."

Action: Revise this paragraph to reflect the determination by the United states Fish and Wildlife Service that there is no evidence to support the hypothesis that snow compaction adversely impacts lynx. In their decision to list the lynx as threatened under the Endangered Species Act, USF&WS concluded "Packed snowtrails facilitate the movement of coyotes into formerly inaccessible deep snow habitats occupied by lynx; however, neither I nor those who assisted me preparing this comment have any evidence that competition with coyotes, mountain lions or bobcats is negatively affecting lynx at a population scale." (65 Federal Register 16,052 and 16,081 [2000])

DEIS at 3-305. Table 3-85. This table mixes the use of theoretical annual capacity and practical annual capacity. The third column labeled "Annual Capacity" is actually Practical Annual Capacity which is 60% of theoretical capacity. The fifth column labeled "% Capacity Remaining" is based on Practical Annual Capacity while the sixth column "Annual Utilization" is based on theoretical capacity. Table 3-89 on page 3-333 appears to be based on Practical Annual Capacity but is not so labeled.

Action: Revise the headings in Tables 3-85 and 3-89 to identify where the information is Theoretical Annual Capacity or Practical Annual Capacity. Also check the accompanying text to be sure that the discussion is clear for these two terms.

DEIS at 3-325. The Forest Service under the 1984 Forest Plan has been monitoring environmental affects at downhill ski areas. The 1998 White River National Forest Monitoring Report shows that more watersheds are meeting water quality goals than targeted in the Forest Plan, that more acres of land have benefited from soil improvement projects than planned, and that wildlife habitat is doing well.

Action: Include a brief status of monitoring findings under the General Affects section to give the reader a sense of perspective. A more detailed status of monitoring findings would be appropriate in Chapter Four - Monitoring of the Draft Land and Resource Management Plan.

Timber Management - Sawtimber Allowable Sale Quantity (ASQ)

DEIS at 3-441 Issue: The Draft Forest Plan and DEIS propose sawtimber Allowable Sale Quantity (ASQ) considerably higher than budgeted sawtimber sales. The Plan also prescribes extensive vegetative treatments with multiple benefits. The Forest advocates the use of "active management as opposed to passive management" to achieve the desired future condition goals and objectives. However, fiscal requirements limit the ability to accomplish the objects of active vegetative management and limit the funds used for vegetative management to the timber sales budget line item or fire. Staying with the historic mix of budget funding and limiting treatment to one budget line item constrains the Forest's ability to achieve the Desired Future Conditions.

The timber program experienced budget level should produce 20-22 mmbf annually. Such a program would require a budget of approximately $2.7 million. I recommend that you either move funds from ecosystem management and wildlife to this line or footnote that benefiting functions will finance the difference between the timber sales line item and the needed funding to accomplish forest health (ecosystem) and wildlife habitat objectives.

Action: Accomplish vegetative treatment outcomes by using a budget mix of benefiting functions.

Watersheds

With the increase in vegetative cover that has occurred during the past 90 years, it would seem logical to assume that water yield from the Forest, as a whole, has declined. However, I was unable to find much mention of this factor in the D.E.I.S.

Action: If there is information to confirm or discount this premise, please include it in the final document.

Fire Management

Table 3-42, page 3-161 identifies the desired role of fire in the various management areas. My team found no similar indication of how insect and disease infestations will be managed in these areas.

Action: Prepare a similar set of insect and disease prescriptions for each management area using Table 3-42 as a model.

Page 3-164 describes the effect of travel management on fire management.

Action: Include the following: Engines and small ground crews are the primary methods of initial attack for fire suppression on the White River National Forest. Road access is a major factor in the effectiveness of these forces. Various alternatives propose varying numbers of existing roads for closure eliminating vehicular access to several parts of the Forest. As a result, both the effectiveness and the efficiency of initial attack on fires in these areas will be reduced in proportion to the loss of road access.

Page 3-268.

Action: Under Affected Environment, please add a more compelling discussion of the importance of existing and additional electronic uses and sites to the mountain residents in the White River National Forest zone of influence including Summit County.

Page 3-315. Pitkin County.

Pitkin County supports a permit adjustment for Snowmass and Buttermilk ski areas to permit the consideration of an East Burnt Mountain Traverse from the top of Burnt Mountain to the bottom of Buttermilk Ski Area. They also support a previously approved traverse trail between Teaser and Jacob's Ladder.

Timber Management

This comment recommends a number of changes in the proposed plan that will provide for a more effective, efficient timber management program**.** These recommendations are:

Rotation Ages – The proposed rotation age of 140 years for lodgepole pine seem appropriate. However, a rotation age of 250 years for Douglas-fir and the Engelmann spruce – subalpine fir types and 120 years for the aspen type are excessive. Much of the true fir component of the spruce-fir type will die well before 250 years. Desired tree sizes can be obtained by age 200. The old growth inventory and analysis did not identify any need to attempt to maintain all of Douglas-fir and spruce-fir types or the aspen type to such an old age. Shorter rotation ages would increase the potential growth of wood products and favor more diverse vegetation across the Forest.

Action: Use a rotation age of 200 years for Douglas-fir and Engelmann spruce-subalpine fir and 100 years for aspen. See page 3-450 and elsewhere.

Cost Efficiency – The last paragraph on page 3-454 states that the commercial timber sales program will **not** be below cost for any of the management alternatives during the first decade. One of the most significant factors affecting timber sale program efficiency (as determined by TSPIRS reporting) is program size and economies of scale. In view of the low program levels proposed by Alternatives C, E, and I and the low wood products sale level of alternatives C, D, E, and I, sales program above cost under these management alternatives is unlikely.

Another factor which has adversely affected cost efficiency is the inconsistency in timber sale program levels from one year to the next. If the Forest Service really wants a cost effective sales program, they need to provide a more consistent, reliable program.

Action: Select and alternative which provides ASQ of at least 20 million bd. ft. and fund a wood products sale program of at least 20 million bd. ft.

Road Construction – The constraints on road construction as indicated by Tables 3-134 and 3-135 confines the timber sales program to areas that have already received silvicultural treatment in the past. This will prevent any significant improvement of age class distribution to benefit wildlife habitat and make changes in vegetation needed to return to Historic Range of Variability. It will also deny the White River National Forest the ability to reach its long term goals on page 1-4 Goal 1.5 Conserve Forest Ecosystems. Provide for a variety of vegetation types, patterns, and structural components to meet Forest Plan desired conditions. And Goal 1.7 Conserve Ecological Integrity. Maintain or enhance desired biological and physical ecosystem components, and apply management practices that mimic the frequency, intensity, duration, and severity of natural disturbances ... to achieve desired landscape condition.

Action: Do not constrain the ability to accomplish desired vegetation changes by constraining the building of roads into roadless areas where the work is needed.

Economic Stability of Dependent Communities – Dependence upon timber resources from the White River National Forest extends beyond the seven counties discussed in the Social and Economic Section of the D.E.I.S.. As described in Douglas Rideout's "Market Assessment of the Timber Situation of the White River NF", the demand and dependence are regional. Processing facilities as far away as Saratoga, Wyoming and Olathe, Colorado use timber from the White River National Forest. If these facilities are forced to close because of the lack of a dependable timber supply, the number of lost jobs will be considerably more than the 31 timber harvest jobs listed in Table 3-163. Also, the economic effect on the communities will be greater because they do not have the strong recreation/tourism economies typical of the five counties within and adjacent to the White River National Forest.

Action: Revise the Social and Economic Section of the DEIS (Starts page 3-467) to adequately consider regional dependency. This section should also recognize the potential for shipping wood products to manufacturing and value added sites via the railroad which traverses the White River National Forest.

Socioeconomic Impacts - Eagle County staff have been unable to document the methodology that the Forest Service utilized in preparing the socioeconomic impact analysis as the supporting documentation was not included in the Draft EIS as stated. Nevertheless, they are concerned that the methodology is flawed. For example, the plan projects that Alternative E (which maximizes recreation opportunities) will generate only 2,500 more jobs during the next 15 years than Alternative I (conservation biology). When comparing these alternatives, Eagle County staff observed that the Other Recreation (non-skiing) employment category is predicted to generate 109 fewer jobs for Alternative E (1,957) rather than Alternative I (2,066).

With the exception of Alternative I ($893.3 million in labor income and 41,115 total jobs) which largely is a preservation strategy, Alternative D generates the lowest labor income $893.9 million) and employment (41,153 jobs) of any alternative. Further, Alternative D generates the second lowest financial and economic net present value or cost/benefit of any alternative. Again, second lowest to Alternative I.

Action: Clearly identify the economic advantages and disadvantage of the alternatives considered in the Final EIS.

Other Considerations – Energy Requirements – It appears that this section of the D.E.I.S. (Page 3-499) was given little consideration. One of the impacts over-looked is that Colorado is a net importer of wood products and that as local production declines there is a corresponding increase in the amount imported. This results in an increase in fuel consumption.

Action: Recognize in this section that energy is consumed in large amounts when we chose not to produce goods and services near the consumer and have to import them.

APPENDIX

Appendix B

Table B-1. A 100-foot buffer on all roads (approximately 1,425 miles) and trails (approximately 690 miles) is not warranted. This withdrawal should only apply to those roads with scenic objectives which preclude timber harvest. The withdrawal should only apply to trails in the national recreation system. Other trails do not require protection other than during disturbing activities where a number of options exist, such as rerouting.

Action: Recalculate the withdrawal of a 100-foot buffer to include only roads and trails with scenic objectives which preclude timber harvest as described above.

Table B-1. The Colorado Best Management Practices prescribe a 50-foot buffer on lakes and streams.

Action: Revise Table B-1 for lakes and streams with a 50-foot buffer. The withdrawal should be 9,487 acres.

Table B-1. The table withdraws 31,370 acres of old growth spruce-fir type from the suitable land base. Since Colorado Division of Wildlife input is that old growth spruce-fir should receive some treatment to improve its wildlife values, I believe that this withdrawal is not desirable.

Action: Unless there is another reason for the old growth spruce-fir withdrawal, revise Table B-1 to exclude this withdrawal.

Action: Revise Table B-2 to reflect changes in Table B-1.

The proposed Draft Forest Plan does not contain direction to manage forested vegetation to maintain species diversity or improve age class distribution in forest vegetation. My team found value in an analysis of the minimal level of forest vegetation per year needed to provide diversity in species and age. This minimal level for the Blended Alternative is as follows:

Tentative suitable timber land common to all alternatives	843,953 acres
100-foot buffer on scenic roads and trails (est.100 miles)	- 2,400
50-foot buffer on lake and stream riparian	- 9,487
100-foot buffer on developed recreation sites	- 5,497
Old growth spruce-fir	- 31,370
Initial suitable timber land common to all alternatives	795,199 acres

Blended Alternative

Additional administrative withdrawals - Total	-277,626 est.
Management areas not suitable	-266,461 est.
Polygons less than 1 acre (slivers)	- 11,165 est.
Suitable timber land in Blended Alternative	517,573 acres

The proposed plan does not list the distribution of forest cover types within the suitable land base for each alternative. However, the 1984 plan indicated that outside the wilderness, the acreage of the major types were:

Aspen	368,029 acres	36.3%
Lodgepole pine	193,980 acres	19.1%
Douglas-fir	54,960 acres	5.4%
Spruce-fir	397,985 acres	39.2%

Assuming there have been no significant changes in the mixture since 1984, the acreage of suitable timber land in each forest cover type is estimated to be:

Aspen	187,879 acres
Lodgepole pine	98,856 acres
Douglas-fir	27,949 acres
Spruce-fir	202,889 acres
Total	517,573 acres

With rotation ages of 100 years for aspen, 140 years for lodgepole pine, 200 years for Douglas-fir and Spruce-fir, the following acreage needs regeneration each year to keep pace with the aging process:

Aspen	187,879 x 0.01 =	1,879 acres
Lodgepole pine	98,856 x 0.007 =	692 acres
Douglas-fir	27,949 x 0.005 =	140 acres
Spruce-fir	202,889 x 0.005 =	1,014 acres
	Total	3,725 acres

This is the minimum level of forest vegetation needing regeneration each year to keep pace with the aging process on the suitable timber lands. Remember that this level of regeneration will NOT reduce the existing accumulation of tree stands in late successional stages.

Using the forest-wide average of 11.7 MBF/acre, harvesting the 3,725 acres results in an annual sale quantity of 43,582 MBF. **Note: This is a very rough preliminary estimate and will change with the more precise Forest Service computer model runs.**

Action: Include this analysis in Appendix B, Page B-9.

Page B-9 SPECTRUM. The model must have a range of rotation ages. The range of rotation ages should be based on a rotation age of aspen equal to 100, Lodgepole pine equal to 140 years, Douglas-fir and spruce-fir equal to 200 years.

Action: Adjust the rotation ages available in the model based on the above rather than 120 years for aspen and 250 years for Douglas-fir and Spruce-fir. Use the same rotation age range for all management areas.

Page B-9 analysis. The demand analysis for aspen did not assess regional potential. The regional area around the White River National Forest could use up to 20 MMBF of aspen per year. The artificially low constraint place on aspen harvest in the model limits the ability of the Forest to accomplish needed aspen vegetation management.

Action: Reassess the demand for aspen in the regional zone of influenced for the White River National Forest. For the harvest analysis, the minimum aspen harvest should be 8-10 MMBF